



Notes from a Nepal virtual stakeholder consultation on  
a proposed One CGIAR initiative on Sustainable Animal  
Productivity for Livelihoods, Nutrition and Gender  
inclusion, 9 July 2021

August 2021


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Compiled by Judy Kimani and Joyce Wanderi

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Patron: Professor Peter C Doherty AC, FAA, FRS

Animal scientist, Nobel Prize Laureate for Physiology or Medicine–1996

Box 30709, Nairobi 00100 Kenya  
Phone +254 20 422 3000  
Fax +254 20 422 3001  
Email [ilri-kenya@cgiar.org](mailto:ilri-kenya@cgiar.org)

[ilri.org](http://ilri.org)  
better lives through livestock

ILRI is a CGIAR research centre

Box 5689, Addis Ababa, Ethiopia  
Phone +251 11 617 2000  
Fax +251 11 667 6923  
Email [ilri-ethiopia@cgiar.org](mailto:ilri-ethiopia@cgiar.org)

ILRI has offices in East Africa • South Asia • Southeast and East Asia • Southern Africa • West Africa

## Contents

Background and objectives .....	1
Feedback on the overall proposal.....	2
Suggestions on interventions and work packages.....	5
Chat feedback: What livestock challenges matter most .....	7
Chat feedback – during the presentation .....	7
Chat feedback: Advice for the team .....	8
Meeting Participants.....	10
Annex: Presentation slides.....	11

## Background and objectives

To implement its 2030 [research and innovation strategy](#), the CGIAR is developing a [series of initiatives](#) designed to achieve a world with sustainable and resilient food, land, and water systems that deliver more diverse, healthy, safe, sufficient, and affordable diets, and ensure improved livelihoods and greater social equality, within planetary and regional environmental boundaries.

CGIAR Initiatives are major, prioritized areas of investment that bring capacity from within and beyond CGIAR to bear on well-defined, major challenges.

Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion is the focus of an initiative being developed by ILRI, ICARDA and other partners.

Still at an early stage, this initiative aims to enable one million livestock producers – especially women and youth - in 6 countries to engage in inclusive value chains and achieve sustainable productivity gains resulting in improved livelihoods.

Given the importance of livestock in the lives and livelihoods of its people and the commitment of public and private actors to transform food systems through livestock, Nepal is one of six countries identified as a potential partner country for this initiative.

To ‘ground’ and improve the proposed initiative, this meeting was convened to guide the initiative design team as they formulate the key interventions and work packages to be delivered. Specifically, we aim to improve the current proposal outline by:

1. specifying which elements and work packages are highest priority for Nepal;
2. identifying missing elements that must be included for it to best serve Nepal’s situation;
3. providing feedback to strengthen the proposed approach and framework;
4. identifying the interests of key national actors in different work packages.

## Feedback on the overall proposal

<b>Group 1</b>			
<b>Strengths of the proposal</b>	<b>Limitations of the proposal</b>	<b>Priority locations for the proposal in Nepal</b>	<b>Priority value chains for Nepal</b>
<p>1. Integrated approach - keen to discuss and identify how to harness synergies with TAFSSA</p> <p>2. It is context-driven, stakeholder engagement is the strong part of the project, it addresses the gap between technology-driven and system users</p> <p>3. Comprehensive concept note</p> <p>4. Rather than single technology in hand-comprehensive concept note if organizes smallholders could be of value.</p>	<p>1. Gender and youth to be seen as cross-cutting issues</p> <p>2. It should cover the system approach</p> <p>3. Human and animal health and global health should be incorporated</p> <p>4. We need to work in coordination with ILRI and come up with a short term and long term plan</p> <p>5. Linkages between crops and livestock not sufficiently clear (competition, trade-offs, harnessing synergies)</p> <p>6. Integrating poverty and inclusion should be a focus</p> <p>7. Comprehensive concept note but doing many things could confuse prioritization. In terms of timing we have to be realistic, considering the geographic diversity, this needs a good focus and it needs to engage with stakeholders to be demand-driven.</p>	<p>1. Agro-ecological conditions should be considered- Nepal has diverse conditions and such diversities should be sampled (consider a gradient of environments from terai --&gt; lower mid-hill, --&gt; upper mid-hill, with different degrees of market integration)</p> <p>2. Site locations is important for market integration and livestock systems. Looking into the existing initiatives to build upon that</p> <p>3. TAFSSA will likely work in Sudurpachim and Lumbini provinces (district selection underway). There would be opportunities for synergies in these locations, but the process of location identification is still being finalized now</p> <p>4. India can't be ignored. There is generally an open border; livestock and also feed inputs move between the countries openly. Much of what one does in Nepal is directly affected by India, and that needs to be taken into specific consideration.</p>	<p>1. Cattle</p> <p>2. Poultry</p> <p>3. Focus on local breeds such as local chicken and buffalo in province 2</p> <p>4. Two VC (buffaloes+goats)</p>
<b>Group 2</b>			
<b>Strengths of the proposal</b>	<b>Limitations of the proposal</b>	<b>Priority locations for the proposal in Nepal</b>	<b>Priority value chains for Nepal</b>
<p>1. Feed and dual-purpose crops very important to Nepal and well covered in SAPLING</p> <p>2. Market development for animal products; price competitiveness;</p>	<p>1. Not clear if SAPLING will work at the landscape level in agroforestry and grassland-based systems</p> <p>2. Coaching farmers, and farmers' organizations in agri-business do not clearly appear in the different work packages.</p>	<p>We did not discuss locations in the group</p>	<p>1. Work on the poultry value chain particularly on the feed component is important for Nepal.</p>

sustainability of animal farming systems (e.g. the poultry sector) 3. Supporting and working with the feed companies of the private sector 4. The selection of the buffaloes and the goats' value chain is pertinent and matches Nepal priorities.			
<b>Group 3</b>			
<b>Strengths of the proposal</b>	<b>Limitations of the proposal</b>	<b>Priority locations for the proposal in Nepal</b>	<b>Priority value chains for Nepal</b>
1. Clear targets so focused 2. Includes capacity building- in different nodes of the VC 3. Pieces well integrated 4. Focus on aggregating production from smallholders very important.	1. Focus on local breeds such as local chicken and buffalo in province 2 2. Comprehensive concept note but doing many things could confuse prioritization.	1. Get the right agroecological group- getting the diversity.	
<b>Group 4</b>			
<b>Strengths of the proposal</b>	<b>Limitations of the proposal</b>	<b>Priority locations for the proposal in Nepal</b>	<b>Priority value chains for Nepal</b>
1. Multi-disciplinary, with the whole value chain and inclusion dimensions, environment-friendly, not just technical 2. Focuses on the important high potential species for Nepal - BUFFALO and goats 3. The focus on sustainable and inclusive value chains.	1. For inclusion: make sure to focus on the species that empower women - so what about poultry? 2. Make sure to include the NRM issues - water, soils etc. 3. The institution/policy parts - are they there? NGO/private sector roles...? 4. Local and locally-adapted aspects - husbandry, housing, by-products. Focus on local	1. Lumbini and Bhagwati	1. Buffalo and goat for sure 2. Chicken as well - the local ones for sustainability

	breeds and desired local traits 5. Need to address: the local feed and forage resources and utilization / how to address the local productivity gaps 6. Indigenous breeds important for the sustainability/breed registration system.		
<b>Group 5</b>			
<b>Strengths of the proposal</b>	<b>Limitations of the proposal</b>	<b>Priority locations for the proposal in Nepal</b>	<b>Priority value chains for Nepal</b>
1. Gender inclusivity 2. High potential for improvement of the genetic 3. High market opportunities and growth for animal source foods - due to growing demand 4. Several technologies that can be used and scaled 5. Target of the project is appropriate and the livelihood gains will be significant 6. The project covers both low and middle/medium groups.	1. Quality of inputs was not explicitly stated 2. Should mention the collaboration of the three levels of government 3. Integrating poverty reduction and inclusion should be a focus 4. Focus on local breeds such as local chicken and buffalo in province 2 5. Rather than single technology in hand- a comprehensive concept note could be of value if it organizes smallholders.	1. Buffalo should be included in province 2 as well as in province 1 2. Goats in provinces 5, 6 and 7	1. Buffalo 2. Cattle 3. Goat 4. Poultry

## Suggestions on interventions and work packages

<b>Group 1</b>	
<b>TOP priority interventions for Nepal</b>	<b>PRIORITY WORK PACKAGES for Nepal</b>
<ol style="list-style-type: none"> <li>1. Meat, market, whole value chain</li> <li>2. Milk</li> <li>3. Buffalos</li> </ol>	<ol style="list-style-type: none"> <li>1. All the work packages are important we can not prioritise because it is interlinked, it is a complex package and it needs continuous consultation and engagement with stakeholders.</li> </ol>
<b>Group 2</b>	
<b>TOP priority interventions for Nepal</b>	<b>PRIORITY WORK PACKAGES for Nepal</b>
<ol style="list-style-type: none"> <li>1. Quality feed production and feed management</li> <li>2. Livestock water productivity improvement pathways due to water scarcity</li> <li>3. Quality feed production and feed management</li> <li>4. Introduction of resilient farming: Innovations and climate-smart technologies to be introduced for inclusive growth and creation of employment and sustainable farming for women and youth</li> <li>5. Integration with relevant national policies and programs like Agro forestry policy etc.</li> <li>6. Genomic assisted selection</li> <li>7. Importance of crop residues in animal feed.</li> </ol>	<ol style="list-style-type: none"> <li>Package 1: Buffaloes and goats are very relevant. High cost of production, affordability by consumers, low productivity of animals. Not exploiting the genetic potential of the animals.</li> </ol>
<b>Group 3</b>	
<b>TOP priority interventions for Nepal</b>	<b>PRIORITY WORK PACKAGES for Nepal</b>
<ol style="list-style-type: none"> <li>1. Digital technologies to bring efficiency, for farmers and other actors e.g. info sharing</li> <li>2. Feed management- to improve year-long availability, to reduce the cost of production</li> <li>3. India- Nepal livestock trade and transboundary markets; how to improve competitiveness</li> <li>4. Organisation farmers- to improve access to markets, the inclusion of small scale producers and also improving bargaining power</li> <li>5. Feed drying technologies- to preserve feed, and enhance the capacity</li> <li>6. Youth migration- livestock activities to allow youths to stay on the farm instead of migrating.</li> </ol>	
<b>Group 4</b>	
<b>TOP priority interventions for Nepal</b>	<b>PRIORITY WORK PACKAGES for Nepal</b>
<ol style="list-style-type: none"> <li>1. Indigenous resources - animals and feed/forages</li> <li>2. Buffalo reproduction, AI, etc.</li> <li>3. Selecting high genetic merit goats</li> </ol>	<ol style="list-style-type: none"> <li>1. Upgrading local breeds for resilience; best forages, health interventions</li> <li>2. Translational research that extension can use</li> </ol>



4. Diversifying the stakeholders involved - to ensure scaling 5. Involving the different actors - academic, extension - with clear roles; draw on the capacities and expertise in academia (students and profs). Need to operationalise this.	3. Certification system for animals - performance recording 4. Spell out r4dev roles very clearly.
<b>Group 5</b>	
<b>TOP priority interventions for Nepal</b>	<b>PRIORITY WORK PACKAGES for Nepal</b>
1. Buffalo - Identifying good stock through appropriate genetics and other means 2. Appropriate feeds and forages 3. Effective disease control especially FMD 4. Effective breeding programs for goats 5. Establishing and promoting programs that promote youth and women empowerment.	1. Genetics and breeds, feed and appropriate reproductive technologies 2. Protection against diseases such as FMD.

## Chat feedback: What livestock challenges matter most

- Feeding and health
- Reducing the cost of production
- Livestock sustaining livelihood
- Breeding, health and nutrition
- Livelihood and inclusion
- Trade-offs of the different socio-economic cultural functions of livestock
- Not enough clean water
- Fair inclusive market
- Lack of sufficient integration into viable value chains for perishables
- Livestock challenges - low productivity driven by poor feeding and health
- We don't fully exploit the opportunities offered by livestock for better nutrition and gender equality
- Sustainable production and food safety
- Feeding management and market stability
- Quality animal availability in Nepal...
- Aggregation systems in the VC (dairy, live goats)
- Market access for fair prices
- livestock policy and support to the sector
- Better husbandry management
- exclusion of women livestock value chain
- Improving productivity and reducing the cost of production
- How livestock value chains can be a pathway for women empowerment
- Improving livestock water productivity
- low productivity arising from inadequate husbandry and low genetic potential
- livestock that are the need and priority of women farmers not promoted!

## Chat feedback – during the presentation

- Breeding--> Feeding--> Nutrition-->housing--> veterinary service
- The challenge to maintain the quality feed and forage
- Indigenous breed registration, quality animal certification
- Access to demand-driven technology for men and women livestock raisers for resilience
- Role of the private sector in technology generation and scale-up
- Inclusive growth and resistance farming
- Housing--> regular deworming --> Nutrition--> production quality checking.
- Academia University involvement is missing in many action plans
- Production and marketing of quality seed stock for breeding stock
- Issues related to market actors at various stages of the value chain system
- Addressing the systemic constraints for food and nutrition security
- Capacity building and human resource development is a major activity of University and teaching, research and extension is the mandate of a university which could be the supporting tools for better work
- Integration of smallholders in the formal market chain is a big challenge. Import becomes cheaper, however, in-country aggregation of produces is not efficient.

- Welcome ILRI along with the SAPLING Project for improving the productivity and production of livestock and poultry towards meeting the nutrition needs of humans. I think we need to improve soil health, plant health, animal health and human health in an integrated way.
- 5 work package is excellent and they need to be addressed taking the short, medium and long term perspectives.
- Action research on zonation and eradication of FMD will open new avenues for livestock trade at the regional and global levels.
- Buffalo for meat and milk has big potential for improvement. Similarly, goat addresses women issues who are raising most of the goats in rural households. Moving toward stall feeding we can address the issues of climate change.
- Karnali Province and Sudur Paschim Province are ideal for goats. Please consider including those two Provinces as well.
- It is also important to consider poultry apart from buffalos and goats.
- Cannot forget local poultry in Nepal when we think of smallholder farmers
- Buffalo: Province 2 is on top.
- We cannot ignore poultry
- We should not leave the province one of Nepal especially hilly area Ilam, Jhapa, Taplejung, Terathum, Bhojpur districts where the massive natural resources are still available for animals

### Chat feedback: Advice for the team

- IWMI Nepal Events – Include water issues in SAPLING!
- Shreeran Neopane – Inclusion of related s/holders for work
- Smrittee Panta -Technologies that are cost-effective and fits in the context of diversified livestock system, not just focusing on one livestock species but rather for a household that raises few goats, poultry and/or buffalo
- Keshav Sah – We should not miss buffalo as a major livestock commodity for province 2.
- Nepal DLS Kiran Pandey – Genetics and forage
- Moushumi Shrestha – Market stability processing to be introduced
- Neena – Do not spread thinly across geography and different themes
- Subir Singh, AFU, Rampur – Setup good coordination between service and developmental organizations to boost teaching, research and extension
- Shreeran Neopane – Good genetics and breeding
- Alok Sikka – Integrate it with land and water systems for soil and water health and quality
- Nanda Shrestha – Genetic based productivity enhancement for food and nutrition with forage-based production
- Devendra Gauchan, Bioversity-CIAT – Use of indigenous breeds of buffalo and goats for genetic improvement and also utilize biodiversity of forages and fodder trees
- Sita Ghimire – Buffalo, Goat and Chicken came strongly from group 4
- Moushumi Shrestha – Try including poultry as it is part smallholder farmers
- Keshav Sah – 50 % of smallholders have local chicken...
- Alok Sikka – Ani final decision on location
- Nanda Shrestha – Marketing system-based seed stock production and marketing
- Krishna Paudel – Let us start putting farmers at the centre first, then commodities and systems - true inclusion.
- Dr Sharan – Strongly monitor the quality of feed and forage. Strengthening of laboratory for quality testing is important.

- Karan Gurung – Goat production association of Nepal - There are so many universities insinuate and college about whole agriculture and animal science they have very great projects and subject knowledge but it is still limited in that study is not practically connected with the real farmer so I hope this organization will address this type of real problems
- IWMI Nepal Events – Let us also recognize Nepal's political economy context along with other drivers and clearly link the role of the three levels of government, and CSOs for a three-dimension of partnership landscape
- Smrittee Panta – Use of participatory action research approach
- Neena Amatya Gorkhali – Joint project recognizing the national problem and stakeholders connections should be strengthened by recognizing the coexistence and mandates of the institutions
- Keshav Sah – Small/medium holder farmers have been the least benefactors in the whole value chain
- Moushumi Shrestha – storage, cold room and proper processing needs to be looked into for market stability in a time of crises and to handle unforeseen circumstances like COVID, lockdown etc. to assure a market for farmers .... health and hygiene needs to be strongly considered creating awareness among farmers
- Nanda Shrestha – Meat production and marketing with humane transportation and hygienic slaughtering and chiller fresh meat marketing
- Nanda Shrestha – How to raise investment in animal agriculture
- Moushumi Shrestha – Linkages with access to finance, tech, and management training for smallholder farmers to be upgraded to commercial farmers
- Moushumi Shrestha – Introduction of digitization to attract youth to get into agriculture and control migration
- Devendra Gauchan, Bioversity-CIAT – Buffalo has great potential for both milk and meat. But I see still there is a high potential for meat production and marketing from buffalo considering a great demand for animal meat in Nepal as goat meat is becoming very expensive beyond the capacity of poor income groups.
- Moushumi Shrestha – From a nutrition and affordable protein perspective poultry meat and egg cannot be ignored for the marginalized community, children and women
- Isabelle Baltenweck – Thanks everyone-- we got a good harvest of suggestions and we will look at them carefully!

## Meeting Participants

1. Bimal Kumar Nirmal, Joint Secretary MoALD
2. Krishna Dev Joshi (CO-NP)
3. Nanda Shrestha
4. Neena Amatya Gorkhali
5. Manohara Khadka, Country Representative, IWMI Nepal
6. Kanchan Gurung, Business and Market System Director, KISAN II
7. Neena Amatya Gorkhali, National Animal Breeding and Genetics Research Centre, NARC
8. Krishna Joshi, IRRI Representative Nepal.
9. Jean Balié, Regional Director (acting) for South Asia and DG IRRI
10. Manita from IWMI Nepal! Looking forward to a fruitful discussion
11. Keshav Sah
12. Alok Sikka, IWMI, India
13. Aynalem Haile, ICARDA
14. Keshav Sah, Associate Director, Heifer International Nepal
15. Mourad Rekik from ICARDA - Tunisia
16. Tim Krupnik, leading the South Asia One CGIAR Regional Initiative, and CSISA, with CIMMYT and the CGIAR
17. Krishna Paudel, Livestock expert with Swisscontact, CASA project
18. Kiran Pandey, Livestock Development Office, Department of Livestock Services, Nepal
19. Keshav Sah, Associate Director, Heifer International Nepal
20. Hom B Basnet, Dean Faculty of Animal Sc. Veterinary Sc. and Fisheries, Agriculture and Forestry University, Nepal
21. Smrittee Kala Panta, Samriddhi Agriculture Research and Development Pvt LTD, Nepal.
22. Devendra Gauchan, Alliance of Bioversity International & CIAT
23. Moushumi Shrestha, Director Shreenagar Agro Group, Nepal
24. Neena Joshi, Heifer Nepal
25. Hari Bahadur KC, Joint Secretary, MoALD
26. Nanda Prasad Shrestha
27. Bhola Shrestha, Heifer Nepal
28. Nanda Prasad Shrestha, Goat Sector Advisor KISAN II Project, Nepal
29. Chandra Dhakal
30. Subir Singh, AFU, Rampur
31. Sita Ghimire, ILRI Nairobi
32. Isabelle Baltenweck, ILRI Nairobi
33. Padmakumar Varijakshapanicker, ILRI's Nepal Country Representative
34. Okeyo Mwai, ILRI, Nairobi
35. Esther Njuguna, ILRI Nairobi
36. Peter Ballantyne, ILRI
37. Judy Kimani, ILRI Nairobi
38. Tsehay Gashaw, ILRI Ethiopia
39. Joyce Wanderi, ILRI Nairobi

## Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion (SAPLING)

Isabelle Baltenweck  
Mourad Rekik

National Stakeholders' Consultations  
July 2021



### Objective statement

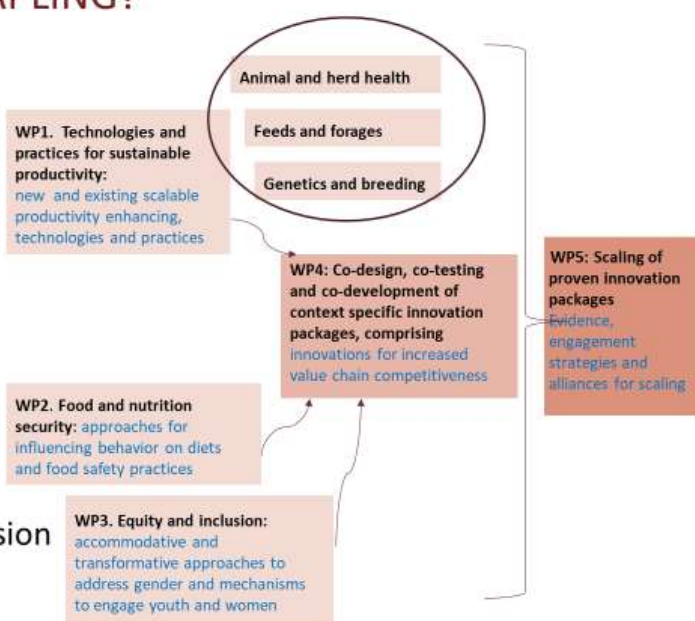
SAPLING aims to enable one million livestock producers, 50% women, in 6 countries to engage in inclusive value chains and achieve sustainable productivity gains between 30-50%, resulting in improved livelihoods

- SAPLING aims to fill critical **productivity** and **value-chain competitiveness gaps** by developing a pipeline of new and existing **demand-driven and co-delivering health, genetics, feed, and market systems innovations**, including climate-smart and digital solutions.
- We aim to work in 4 countries with quick wins for scaling (Ethiopia, Tanzania, Uganda and Vietnam), and 2 countries where relationships will be built and packages co-created to achieve intermediate outcomes by 2024 (Mali and Nepal)
- **7 value chains** with high potential for small- and medium- scale producers to capture market growth: dairy (including buffaloes), beef, sheep, goats, poultry- eggs, poultry- meat, and pig. We anticipate targeting more than one value chain in each country



## What is SAPLING?

- Sustainable
- Animal
- Productivity
- Livelihoods
- Nutrition
- Gender inclusion



### Links with other Initiatives

**LCCR:** Livestock, Climate Change and Resilience

**OneHealth:** herd health

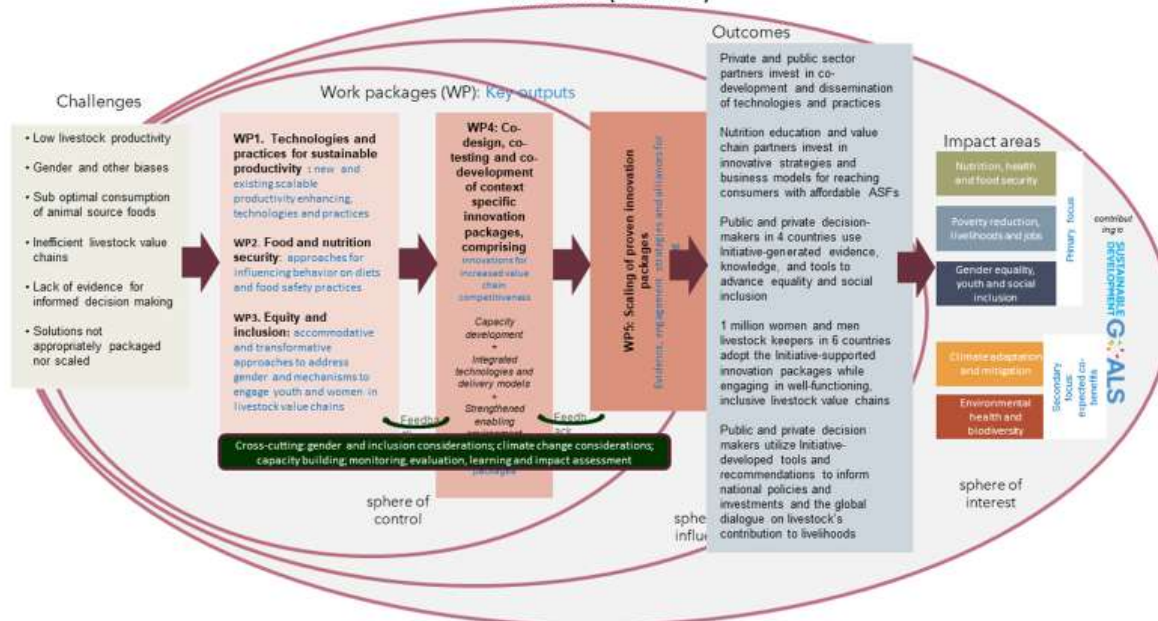
**Sustainable intensification :** technologies and market innovations

**Excellence in breeding:** feed traits (forages) and genomic selection

## Focus on the work packages

<b>WP1 Technologies and Practices for Sustainable Productivity</b>	With “next user” delivery partners: Develop, adapt, test, demonstrate, and pilot new and existing productivity enhancing, climate-smart, scalable technologies and practices including improved feeds, forages and dual-purpose crops, novel animal health products, herd health packages, improved genetics, improved husbandry, and cross-cutting solutions for environmental sustainability.
<b>WP2 Food and Nutrition Security</b>	Generate evidence on effectiveness of approaches to strengthen the role of ASFs in diets and to reduce social barriers to sub-optimal consumption. Develop and test practices for safe production and appropriate handling of ASFs along livestock value chains. Co-create innovative models to deliver affordable, safe ASFs to consumers.
<b>WP3 Equity and Inclusion</b>	Design and test accommodative and transformative approaches addressing gender- and youth-related constraints (accessing, benefiting, and controlling opportunities and resources) throughout the livestock market system and at the household level. Design and test women- and youth- demanded innovations that provide opportunities and capabilities to engage in competitive livestock value chains.
<b>WP4 Innovation Packages for Value Chain Competitiveness</b>	Generate evidence on innovation packages across sites and value chains. Prioritize innovations at the farm, value chain and landscape level via trade-off analysis. Co-create gender and youth inclusive innovation packages that include technologies/practices, veterinary/diagnostic services, input, extension and service delivery mechanisms, farmer and SME finance and insurance, and market information and output marketing systems.
<b>WP5 Evidence, Decisions and Scaling</b>	Provide compelling scientific evidence and tools that feed into co-delivery of technologies/practices, business-models and policies that will sustainably improve livelihoods. Synthesize evidence and develop communication and engagement strategies to disseminate and advocate for increased investments and better policies at country level and globally.

## Theory of change for Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion (SAPLING)



## What SAPLING could mean for Nepal

V. Padmakumar, ILRI Country Representative



## Background



- People BPL 18.7% (2019)
- Food insecure people 4.6 million
- Malnutrition is a key concern:
  - 36% of children under age five are stunted)
  - 27% of them are Wasted (weight to age)
  - 41% of women of reproductive age are anaemic



### Animal Source Foods

Dense source of key nutrients

High bio-availability

Some nutrients are critical for pregnant & lactating mothers and children <5 years

Some nutrients are present only in ASF



### Livestock farmers

71% of farmers own livestock and poultry



Most are smallholders keeping:  
A few chickens  
1-10 goats  
2-3 pigs  
1-2 buffaloes

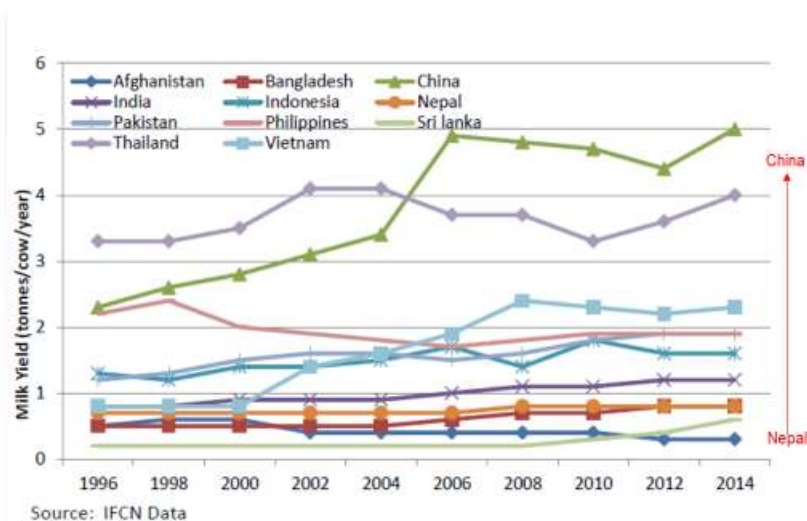
Livelihoods

Income

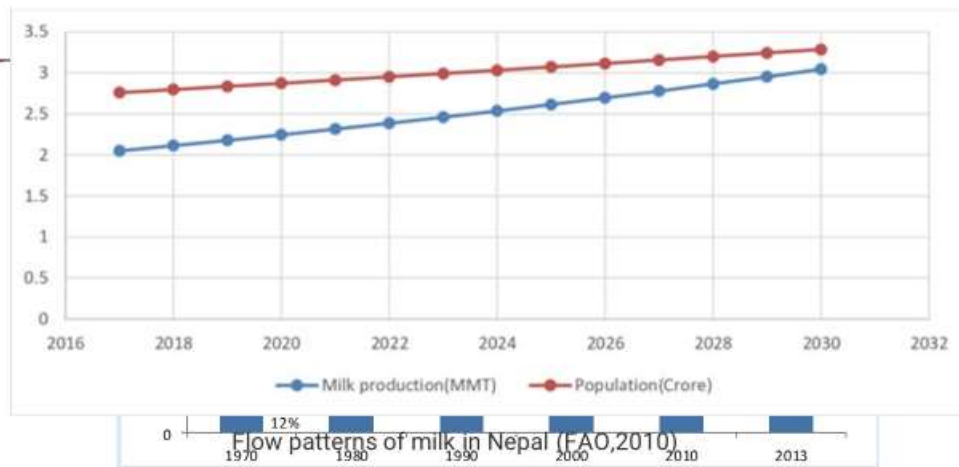
Nutrition

Health

## Productivity, yield gap



## ASF - growing demand



Trends of milk production. Source: Staal et al. (2016)

## SAPLING – what is on offer



### Productivity

Improved cattle, buffalo genetics integrated with ICT, genomic and reproductive tools

Forage breeding, improv. of crop residues, off farm feed production, digital DS Tools

Reproductive platform delivering reprod. services (FTAI, Sire certification) in sheep & goat CBBP

Digital farmer support system to promote herd health, vaccine platform to develop candidate vaccines

### Food and Nutrition Security

Increased affordability

Behavioral change strategies for increased ASF consumption

### Equity and Inclusion

Gender transformative approaches

Empow. marginalized groups, women

### Value chain competitiveness

Access to services

Input/output markets

Business models

Digital tools

### Scaling

Trade-off analysis

Policy briefs

Decision support tools

## Potential commodity VCs



- More researchable issues
  - Long age of maturity
  - Long inter-calving period
  - Seasonal breeder
- Good selection D. (indigenous. Hills)
- Efficient converter of low-quality fibrous feed
- Dual purpose (milk, meat)
- High value product
- Neglected species



- Low input system
- Poor genetics (improved 6.1)
- Inadequate nutrition (low weight at maturity)
- High mortality
- Women empowerment
- Improvement-larger outreach
- Growing demand
- Commercialization opportunities
- Welfare

## Proposed choice of commodity VCs and geographical regions

(where research can create maximum impact: Poverty redn, H Nutrition, Env health, CC, Gender)



Species	Terai (59m-610 m)	Hills (610m-4877 m)	Province (population in decreasing order)
Cattle	✓	✓	Province 1
	✓	✓	Lumbini
	✓	✓	Province 2
Buffalo	✓	✓	Lumbini
	-	✓	Bagmati
	✓	✓	Province 1
Goats	✓	✓	Province 1
	✓	✓	Lumbini
	-	✓	Bagmati
Pigs	✓	✓	Province 1
	✓	✓	Lumbini
	✓	✓	Gandaki